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accomplishments of fiscal year 1978

northeastern area state & private forestry

U. S. D. A.
FOREST SERVICE
BROOMALL, PA

ON THE COVER of this report is a rendering of the new headquarters of the Northeastern Area, State and Private Forestry, and the Northeastern Forest Experiment Station, in Broomall, PA.

The building, which appropriately overlooks a ridge of woodland, is a modern structure that provides 35,000 square feet of floor space to accommodate 170 employees of the Forest Service.

Broomall is situated in Marple Township, population 28,000, approximately 12 miles from downtown Philadelphia and within minutes of shopping centers, malls, and other commercial establishments.

The region is noted for Ridley Creek and Brandywine Battlefield State Parks; Longwood Gardens; and many educational facilities, both public and private.

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An Overview of Fiscal Year 1978

The following report summarizes the achievements of the Northeastern Area State and Private Forestry during Fiscal 1978.

It is presented in a general narrative form, touching on what we consider to be the most important tasks carried on within our 20-state area. All of them relate to our goals of providing leadership in the protection, management, and use of non-National forest lands and related resources. The accomplishments include the work of our States.

Fiscal Year 1978 showed significant progress both for the Forest Service and our cooperating State partners. I look to Fiscal Year 1979 as an opportunity to continue this productive alliance to the benefit of the forest lands within the 20-state area and the people who reside there.

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Area Planning

Area Planning Programs are directed toward forest management for the coordination and orderly conservation, development, use and management of water, land, and related resources. Programs emphasize multiple use forestry highlighted by the water resource objective.

One of the most important works during the year was the municipal watershed assistance program, which made significant strides in its development process. Assistance provided to municipalities included investigation of water quality improvement through vegetation management and problem area identification. Several technical assistance trips to municipal watersheds were made during the year and a cooperative venture with the Soil Conservation Service was discussed for future study.

Under the Flood Prevention Program, four States were provided with accelerated technical assistance funds for the Potomac and Little Sioux projects. The Northeastern Area is responsible for forest land planning within the authorized project areas of the Little Sioux River, which flows through Iowa and Minnesota, and the Potomac River, which flows through West Virginia, Virginia, Maryland and Pennsylvania. The funds enabled the States to provide assistance to landowners for installation of land treatment measures to reduce runoff and erosion. Tree planting goals of 800 acres were surpassed by 60 percent.

Through the Small Watershed Program, technical assistance funds were provided for 83 projects, which accelerated watershed protection and flood prevention work. In cooperation with the

State Foresters, all planning goals were met, as were those set for the preparation or revision of forest management plans.

As part of the Resource Conservation and Development (RC&D) Program, annual plans of work were completed for 28 projects and accelerated technical assistance funds were provided for 24 of them. A survey was initiated and report completed to determine the hydrologic impact of grazing on forest lands in southern Indiana. Seven States were assisted, two workshops were held, and a full-time forester was assigned to the 12-county Wes-Mon-Ty RC&D project in West Virginia.

Funds were provided to the State of Maine under the Emergency Flood Prevention Program to implement emergency measures on the Baxter State Park burn to protect lives and property from floods and the effects of erosion. USDA emergency boards were further assisted in two states. Summer storms in Minnesota required continued support to the Federal Disaster Administration.

Area Planning staff, in cooperation with the Missouri Department of Conservation, participated in seven projects in three Corps of Engineers' districts. Work consisted of implementing previously developed forest recreation and vegetative management plans within designated park areas on COE reservoirs.

Last year's long-range planning programs covered staff input to river basin studies. Resource Analysis Procedures (RAP) were initiated in two river basin studies. These efforts are directed at the orderly development and use of the Nation's soil and water resources, insuring that present and future demands are met.

The Forest Service represents the U. S. Department of Agriculture in the study of rivers nominated for inclusion in the Wild and Scenic River System. Serving as a member of an interagency study team, Area Planning helped to evaluate aspects of study rivers to determine their qualifications for inclusion in the system. Forestry inputs were completed for two Wild and Scenic River studies covering the

Penobscott and Youghiogheny Rivers and a final report was completed and published.

Emphasizing improvement of soil productivity and air and water quality while selectively improving water supply, the Area Planning staff provided assistance to six States through their "208" committees. Section 208 of the Federal Water Pollution Act pertains to area-wide waste treatment management. A guidebook for evaluating erosion and sediment rates for forest land practices is almost complete. An in-service watershed management workshop was successfully conducted and an orientation program, records training school, was held for new Area Planning personnel. A model "208" implementation of "Best Management Practices" was negotiated with EPA and other USDA agencies for the West Branch of the Delaware River in New York. This effort will begin in FY 79.

Forest Resource Planning

A growing population and accompanying social, economic, and environmental problems make it imperative that we make the wisest choices in how we use the forest land today for the needs of tomorrow. The Forest Resource Planning Unit assists States in determining their present forest land resources and planning for wood, water, wildlife, and natural beauty needed in the future.

A goal of the Forest Resource Planning Act (RPA) of 1974 is to coordinate forestry programs to meet the needs and desires of the States, their residents, and the landowners. State forest resource plans are one way to accomplish this goal. The Forest Resource Planning Unit is helping States in the Northeastern Area to formulate State forest resource plans.

The Cooperative Forestry Assistance Act of 1978 authorizes the Federal Government to share with States the cost of those programs that contribute to meeting national needs.

Last year the Forest Resource Planning Staff made substantial progress in implementing Section 208, the area-wide waste water treatment portion of the Federal Water Pollution Act. Regional coordination meetings were held in Chicago and New York with State Foresters, State water quality officials, regional and Washington representatives of the Environmental Protection Agency, and NA and Region 9 of the Forest Service, to review forest considerations and approaches in "208" planning.

NA and EPA personnel met with the West Virginia State Forester, State water quality officials, and the "208" technical advisory committee to plan for

silviculture activities in the "208" process, using Best Management Practices.

A "208" program coordination meeting was held in Broomall with participation by the EPA Washington office, EPA Region III, the Southeastern and Northeastern Areas of State and Private Forestry, and Region 9 of the Forest Service. This session presented the Forest Service's view of State problems to help the EPA to carry out its mission without being unreasonable or unduly harmful to the States.

An inventory of existing State statutes and ordinances that govern the management of streamside zones for water quality has been published. This publication should provide useful information to States with little or no legislation enabling them to draw on the work of other States for their own use.

The FRP staff contracted for a four-day workshop in State forest resources planning for Northeastern Area State Foresters in April. Sixteen States were represented at the workshop held in East Lansing, MI.

To pilot broad public involvement in matters related to resource planning, the FRP staff, in cooperation with Vermont's Department of Forests, Parks, and Recreation, prepared a booklet, "Vermont's Forests--Change and Challenge." This booklet contains a tear-off survey questionnaire to obtain public views concerning forest resource problems. This public involvement will help in the preparation of Vermont's statewide forest resources plan.

Also, to encourage States to employ public involvement procedures in their planning to assess the public's opinion and to get support for State financing needed to attract Federal matching funds, FRP contracted with Synergy Corporation to conduct an awareness training session in public involvement. Held in Columbus, OH, in February, the course was attended by representatives of 10 States.

NA is assisting Vermont under a two-year cooperative funding project to finance a State forestry employee as a resource advisor in the Vermont

Department of Community Affairs. He is to assure forestry input into Regional Planning Commission efforts.

NA, Michigan Technological University, and the Michigan Department of Natural Resources are cooperating on a pilot test of the Resource Analysis Procedure (RAP), a computer system, for the Forest Resources Planning in the western half of the Upper Peninsula.

A Forest Resources Planning training program is being developed to enable each State to do its own training in planning. North Dakota State University field-tested the initial Forest Resources Planning training session in Grand Rapids, MI. Twenty-two field foresters from Michigan and 11 participants from seven other States provided feedback on the program. This training session is intended to help county-level foresters make input into regional and local planning efforts. Another field test of the revised session is planned.

The Michigan Department of Natural Resources, with technical and financial assistance from NA, is developing a local definition of prime timber lands in the entire Upper Peninsula. This project is to map prime timberlands and to inform potential users how to apply this information. It has the support of local landowners, State and Federal agencies, environmental groups, educators, timber industry, and local planning groups. Elected officials will use this project as a basis for rural land zoning.

Human Resource Programs

The Human Resource Programs of the Northeastern Area State and Private Forestry are oriented toward people, as the title suggests. By providing valuable work experience for young people and meaningful part-time employment for senior citizens, the programs are also producing measureable benefits for the lands they serve and the public who use them.

There are three major programs administered in the Area: the Senior Community Service Employment Program (SCSEP), which is known as Older Americans; the Youth Conservation Corps (YCC); and the Young Adult Conservation Corps (YACC). Each has a separate purpose but all have conservation-related goals and are intended to foster an appreciation of nature, concern for ecology, and an understanding of environmental protection. Some of the jobs in these programs are office assignments but most involve field work, including trail construction and maintenance, and stream bank, timber stand, and wildlife habitat improvement.

Administered under the Comprehensive Employment Training Act (CETA), the Older Americans program provides part-time employment to citizens at least 55 years of age who have limited incomes. They are permitted to serve a maximum of 1,300 hours a year, as compared to 2,080 hours for a full-time employees, but can set up a schedule of short days or short weeks to spread out their time and income, if they desire.

At the close of FY 1978, there were 25 persons enrolled in SCSEP through NA-provided funds in Maine, New Hampshire, and Vermont. This

represented 100 percent of the positions available in the program as opposed to only four enrollees for 29 authorized during the previous year.

There were several reasons for the increased participation last year. The Human Resource staff provided training for new program administrators and supervisors in Maine; assisted with grant application preparation in the three states; provided program advice and technical assistance in the states, including assistance trips to each state.

Full-time professional foresters and others generally have given enthusiastic support to SCSEP because it provides them with a pool of mature employees, though part-time, who more than likely have had some work experience and often require only minimal supervision.

The Youth Conservation Corps is an 8 to 10-week summer program that enables boys and girls aged 15 to 18 to acquire temporary work experience on public lands and to receive environmental education. Enrollees serve in residential or nonresidential camps and may be assigned to either Federal or State Grant programs.

Under the Federal YCC Program, the Northeastern Area provided summer employment in FY 1978 to 20 youths and three staff members at the Pinchot Institute for Conservation Studies at Milford, PA. A total of $28,000 was budgeted for the program there, where 15 work projects with an appraised value of $28,475 were completed.

There were 1,703 enrollees in the YCC State Grant Program, serving in Connecticut, Delaware, Maryland, Massachusetts, New Jersey, Rhode Island and the District of Columbia. The camps where they served were allocated a total of $2,537,336 and in turn performed work with an appraised value of $2,269,682.

The Human Resource Program staff participated in pre- and post-season training and debriefing of State YCC administrators and camp directors; they carried out grant review and approval for six States and the District of Columbia; coordinated with designated field representatives from the Department

of Interior; reviewed two States, New Jersey and Massachusetts, with Washington Office staff; and provided program advice to the States.

The Young Adult Conservation Corps, a CETA program like the Older Americans, is designed for unemployed men and women between the ages of 16 and 23, providing them with jobs in useful conservation work on Federal and non-Federal public lands and waters. Enrollees have the opportunity of working up to 12 months, either consecutively or in three separate spans that total 1 full year.

In the Federal YACC program in 1978, 43 enrollees served at Broomall, the Pinchot Institute, and Forest Service field offices in Delaware, OH, Portsmouth, NH, St. Paul, MN, and Morgantown, WV. The YACC budget was $211,825 for these units, whose enrollees performed tasks that had an appraised value of $304,327.

The State Grant YACC program was much larger in scope and area, covering 20 states and the District of Columbia. At the close of FY 1978, there were 3,085 enrollees at residential and non-residential camps. Monies available for the program here totalled $32,491,614.

Area Human Resource staff members devoted considerable time to administrative work related to the State Grant program. They reviewed and approved jointly with U. S. Department of the Interior regional directors all FY 1978 State Grant applications; with Department of Agriculture conducted two State Grant training sessions involving 20 States and the District of Columbia; participated in two planning meetings with USDI national directors, during which general guidelines were established for programing efficiency; they visited and provided program and technical assistance to all State program agents and assisted the Washington Office staff in the development of State Grant regulations.

Organization Management Assistance

Effective management that results in the greatest mileage possible for every dollar spent is one of the major concerns of the Organization Management Assistance Staff.

To achieve this, the staff channels its efforts through advice, technical assistance, and consultations with State forestry organizations and forest industry. Program assistance covers a broad area, taking in such things as computer application, workload analysis, management by objectives, safety practices, employee motivation, civil rights and equal employment opportunity, performance evaluation, and environmental education.

During FY 1978, much of the work accomplished by OMA came under the heading of training of various types for the benefit of the 20 States within the Area.

During the past year, for example, the staff conducted an instructor training course at Paul Smith's College for the New York Department of Environmental Conservation. The Missouri Department of Conservation received its second instructor training course with a good cross-section of its department in attendance. The West Virginia Division of Forestry was assisted in launching its third instructor training course -- the first one totally administered by the division.

The OMA staff conducted its Organization Management Training Course in both Indiana and Maine during the year and two forestry salesmanship courses were piloted, one each in Ohio and Wisconsin.

Training in the field of safety was particularly significant during the year. Two in-house safety seminars were conducted, one for the NA/NE field

office in Morgantown, WV, and the other for YACC enrollees and staff at the Pinchot Institute for Conservation Studies. A mini seminar was conducted for the director and staff of the Iowa Conservation Commission and OMA assisted in a safety and health program review for the Mississippi Forestry Commission.

A workload analysis was conducted in Missouri to aid the State Forester in the reorganization of forestry activities. This change will result in fewer people reporting to the State Forester's office, improved coordination of field work, and a better career ladder for employees.

In response to a request from the State Forester of Minnesota for a management attitudes survey of his unit, OMA provided forms, the computer output, and an analysis of the reports. Nearly 98 percent of the employees responded, which should provide high credibility for the results.

OMA prepared a State data book for the internal use of all NA staff in their work with the States. Copies were provided also to each of the 20 States. The book contains basic information regarding forestry organization personnel, land and water resources, products, population, government, media, agriculture, schools, and miscellaneous data. Maps of each state, showing its organizational boundaries, also were provided.

The staff developed a workload analysis packet with script, forms, and visuals for use by States in conducting their own analysis and field test. This job is complete except for visuals and field testing. Copies of the product are available in notebooks, and binders have been provided to the Washington Office, Southeastern Area State and Private Forestry, and Regions 1 and 2 of the Forest Service.

Another accomplishment was the preparation of a reading reference list from the OMA library that will cover all organization elements and will be distributed to the States. A complete listing of chapter titles has been completed and the list soon will be published.

Resource Management

The 20-state Northeastern Area has almost 150 million acres of commercial forest, and three-fifths of our Nation's population, which places heavy public demands on these lands. NA, through State forestry organizations, provides assistance in managing the lands to produce the most goods while maintaining a balanced environment.

The Resource Management Staff provides leadership, technical assistance, training, and coordination of Federal/State assistance programs in such fields as silviculture, genetics and tree improvement, nursery management, wildlife, recreation, forested range management, resource inventories, and urban forestry.

State service forestry personnel assisted more than 70,000 forest landowners to develop nearly 18,000 resource management plans. More than 4,000 referrals were made to forestry consultants and 500 minority forest landowners were provided technical assistance.

A number of publications were released last year for both specialized and general audiences. One was "The Service Forester's Handbook," which contains basic information used by field foresters. It covers forest-client relationships, silvicultural practices, woodland reconnaissance, forest management plans, estimating timber sale volume, timber sale agreements, timber stand improvements, reforestation, economics and taxation, herbicides, Christmas tree management, and forest products utilization.

Two publications were revised and reprinted for use by service foresters to provide ready assistance to forest landowners: "Firewood for Your

Fireplace" and "Improve Your Woodlot by Cutting Firewood." "A Silvicultural Guide to White Pine in the Northeast" stresses research results in white pine. Resource Management cooperated with the Northeastern Forest Experiment Station in reviewing and publishing "Buying Your Christmas Tree."

Proceedings of key meetings also were published; for example, the Northeastern Area Nurserymen's Conference in Staunton, VA, and the first Symposium of the Metropolitan Tree Improvement Alliance held at Lanham, MD. The latter publication is to be used as reference material in urban and community forestry.

Fiscal 1978 was a crucial year for urban forestry in that it marked the first appropriation made by Congress under an amendment to the Cooperative Forest Management Act. The appropriation, which totalled $3.5 million, was allocated to the States following a joint plan devised by the National Association of State Foresters and the Forest Service.

During 1978, States already engaged in urban forestry activities were able to move forward aggressively with the new funds while many others were planning their programs, recruiting personnel, and determining the level of needs of their states' communities. Indicative of the importance placed on this effort are some 30 full-time urban foresters on the staffs of State Foresters in the Northeastern Area. The Area now employs three full-time persons working in urban forestry, one each in Broomall, PA, Portsmouth, NH, and St. Paul, MN.

In Vermont, several seminars developed jointly by the State Forester, Extension Service, Department of Agriculture, and the Vermont Plantsmen Association provided both insight into urban forestry and technical information for tree wardens and town officials. A number of towns responded by appointing tree wardens. In Rhode Island, a seminar on sources of funding for urban forestry pointed out a number of programs that may be tapped for tree work.

Some States, including New Hampshire, Iowa,

and Michigan, have started community surveys to gain understanding of the quality of tree care, level of funding, and size of the job of providing technical assistance.

Several States developed technical education material to help train officials concerned with urban forestry. Vermont has an excellent slide-tape program; Indiana contracted with the Brandywine School of Urban Forestry Technology to produce its slide program; and other States are producing publications on selection of urban trees for various sites in their States.

The Resource Management Staff assisted the States with information on the administrative and technical aspects of the new urban forestry program. The staff, in cooperation with the Northeastern Forest Experiment Station, also helped write and publish an urban foresters notebook, a looseleaf publication designed to function as a source of information about a number of aspects of urban forestry as well as a filing system to which pertinent information can be added.

The Area helped to plan and finance the National Urban Forestry Conference in Washington, attended by almost 500 persons from across the nation. This three-day conference brought together practitioners, scientists, educators, and interested laymen to present usable information on management of the urban forest.

One of the most significant projects of the Northeastern Area has been the formation of a cooperative seed bank. The bank was organized to establish a stockpile or reservoir of tree seeds, all from superior or improved sources, that will last through lean years, covering both crop failures and fiscal shortages. It allows members to make withdrawals and to repay them with other seed or with cash.

The seed bank concept began in 1974 when the Forest Service entered into an agreement with the Applied Forestry Research Institute of Syracuse, NY, with the cooperation of various states, to develop seed collections, a seed bank, and a forest nursery system for the Northeast. As a

result, a New York/New England seed bank is operational, and a Missouri cold storage vault was doubled in anticipation of similar use. In FY 1979, additional seed and seed storage containers will be purchased.

Training sessions in the management of fine hardwoods were conducted in Iowa, Missouri, Illinois, Indiana, Minnesota, Ohio, and West Virginia. Timber stand improvement training was held in West Virginia; New Hampshire received training in northern hardwood management; and slide tapes were prepared on sugarbush and northern hardwood management in New England. In addition, the Resource Management Staff assisted New Hampshire and New York in multiple-use management workshops.

Help was rendered to the States of Maryland, New York, New Jersey, New Hampshire, Pennsylvania, and Ohio, and Region 9 and the Province of Quebec in the testing and evaluation of their white pine seed orchards. This work is being continued in FY 1979.

A seed pelletizer was purchased to coat (enlarge) small seeds uniformly so they may be sown more accurately and easily in the more than 30 public nurseries in the Northeastern Area. Plans for a working walnut seeder were drawn by the Roscommon Equipment Development Center and distributed to nurseries to aid in seeding species with large seeds, such as oaks, pecans, walnuts, and butternuts. Nursery soil and tissue analyses of seedlings grown in the NA states continue to be a popular service provided by the Forest Service through cooperation with the College of Environmental Sciences and Forestry at Syracuse.

Herbicides are being tested in nurseries in Indiana, Michigan, New York, and several other States in cooperation with the Applied Forestry Research Institute in Syracuse to reduce weak competition safely and allow seedlings to grow with increased vigor.

Resource Use

Cooperating with forestry units in 20 NA States, the Resource Use Staff implements the Forest Products Utilization (FPU) Program to extend the Nation's supply of timber through more efficient production of forest products. To achieve this, the State/Federal team provides technical assistance to the forest products industry in harvesting, primary and secondary processing, and marketing.

A number of major accomplishments were achieved. First was the success of State projects under the Improved Harvesting Program (IHP). One hundred fifty-four woods operations that were analyzed will help extend the timber resource by 28.3 million cubic feet, far exceeding the target objective of 16 million cubic feet. Also, 126 sawmills were analyzed in the Sawmill Improvement Program (SIP). The target objective of 14 million cubic feet was met and exceeded by 7 million cubic feet of logs. The Roughmill Improvement Program (RIP) helped increase the average yield of furniture components by almost 10 percent at 85 furniture and dimension plants. The total increase in yield was equivalent to about 19 million board feet of No. 1 Common and better lumber. Furthermore, evaluation of the residue potential for energy at secondary processing plants showed that 75 percent of 60 companies surveyed are using their dry residues. About 20 percent of the others plan to use residue in the future.

Many 1978 accomplishments were not as quantifiable as those already mentioned but together will have a cumulative effect in future years. For example, field tests were conducted in New York,

Michigan and New Jersey on the Weak Link logging systems analysis procedure developed by Forest Service research. This tool helps a logger locate production bottlenecks. The Weak Link concept also helps predict logging systems performance, enabling loggers to estimate production levels, costs, and inefficiencies resulting from changes in conditions. Research and FPU specialists presented these techniques to participants from 13 States at a workshop in Indiana. The workshop included the concepts of a computer-oriented forest residue sampling technique called Logged Area Analysis (LAA). Five States implemented action projects for measuring tree parts left after timber harvests.

Considerable work was devoted to a variety of training courses. Two training sessions in sawmill basics were conducted at the Ford Forestry Center in Alberta, MI, and the State University of New York at Syracuse. Twenty-two states were represented. A training program in the form of a traveling sawmill maintenance clinic also was initiated during the year, providing training and technical assistance to sawmill personnel twice in Ohio as well as in Indiana and New York. The instruction was offered by a team from Michigan Technical University. This service is expected to be continued through at least three more States in 1979.

Forestry interests in Ohio received assistance in industry training in safety, grading, drying, and lumber cutup. In addition, FPU specialists initiated a sawmill technology transfer workshop in cooperation with the Appalachian Manufacturers, Inc. Twenty-three Ohio lumber companies were represented. Both West Virginia and New Hampshire received assistance with sale layout training including roads, economics, aesthetics, soil and water, and silviculture. Other workshops included the biennial NA-FPU workshop and two RIP workshops, all of which help transfer current technology.

Problems in processing short logs are under investigation by the Northeastern Forest Experiment Station. The Resource Use Staff is monitoring the

results, which ultimately will make more high-value hardwood lumber available. In line with this, the Vermont Department of Forests/Resource Use adapted a computer system for short log processing analyses. In addition, a workbook on short log processing equipment was assembled and distributed. Nine States received assistance in the use of computers for sawmill analyses, which is a continuing function.

A comprehensive resource and market analysis was completed in northwest Wisconsin. Similar work is underway in three other sections of the Northeastern Area. FPU State analyses were completed in seven states and work was started in five other states. A market analysis of Boston, MA, was near completion and a directory of metropolitan wood-using industries was published for Chicago.

Wood energy programs were initiated in Maryland, New Jersey, and New York, with Maryland completing a 200-cord fuelwood sale. New Jersey specialists published a fuelwood manuscript and three other journal articles on their urban residue accomplishments. These and other State specialists will address urban utilization problems from Washington, DC, to New York City.

Opportunities for cable logging were reported on and the RU staff conducted drying efficiency studies in 10 states and training 10 forest products utilization specialists in new computer concepts for evaluating volume and dollar loss due to poor drying practices.

During Fiscal 1978, personnel of Resource Use concentrated on publications and workshops. New publications for 1978 include:

1. Bark Producers Directory
2. Can Cable Logging Better Protect Southern Forests?
3. Directory of Chicago Secondary Processors
4. Improved Lumber Yields in the Roughmill
5. Lumberman's Export Guide
6. Small Log Processing Equipment Workbook
7. SOLVE Users Manual
8. Utilizing Urban Tree Debris in Chicago

9. Wood Residue Utilization in New Jersey

Three former publications were revised and five new manuscripts are in various stages of completion. Included is a comprehensive rewrite of the old "Northeastern Loggers Handbook" which will be entitled "Eastern Timber Harvester's Handbook."

Fire Management

Cooperative Forest Fire Management (CFFM) helps provide effective forest fire protection on State and private lands through financial and technical assistance.

CFFM participation continued in two interstate fire companies, the Northeastern Forest Fire Protection Compact and the Middle Atlantic Compact. Both were organized to enable States to provide trained crews, fire fighting equipment, and other forms of mutual assistance in times of emergency. The Northeastern Area State and Private Forestry, through the CFFM staff, provides a coordinator for the compacts who assists in developing lesson plans and materials for training, assists in staging the annual training meetings and in coordinating activities with other organizations.

During FY 1978, the States demonstrated continued support for the Rural Development Act of 1974, Title IV, which provides funds to assist rural communities in organizing, equipping, and training fire companies. Last year, 1,641 new projects, representing $1,265,695, were approved, bringing the total to 5,790 approved projects worth $5.5 million since the program began in FY 1975. The 31 fire companies established last year pushed the total to 75 new rural fire companies in the Area since the program was initiated.

An air operations analysis was completed for Maine, and Indiana was assisted with its "Hoosier Prairie Prescribed Burn" on which 2 weeks were spent to plan and execute a complex 300-acre prescribed burn near Gary.

Regional District fire planning was completed

statewide in Illinois and Maryland, and was continued in Maine, Minnesota, New Hampshire, and Wisconsin. Planning has been started in one county in West Virginia.

The CFFM plan of work for FY 1978 called for a 5 percent reduction in the acreage of State and private lands protected by the National Forests. This goal was met and surpassed.

The Northeastern Area assisted States in obtaining advanced fire training for 21 State representatives at national training courses. Eleven 2-day training sessions were held throughout the Area for National Fire Danger Rating System (NFDRS) and Administrative Forest Fire Information Retrieval Management System (AFFIRMS), with 19 of 20 States of the Area attending. Six more detailed 1-day AFFIRMS training sessions were conducted with nine States in attendance. All sessions were put on with the cooperation of Region 9.

Interagency training programs for basic fire training were provided by a smokejumper cadre from Missoula and were sponsored in Maryland, Indiana, New Jersey, and Pennsylvania.

The fire prevention motion picture "It's Your Fire" was completed and is being distributed.

A Crew Liaison Officer course, the first to be held in the East, was sponsored and presented at Broomall. Among the 47 attendees were representative of 14 National Forests, two Forest Service regions, 10 States, three National Parks and the Northeastern Area.

A major project in 1978 was the continued participation in an equipment development and testing program at the cooperatively financed Roscommon Equipment Center at Roscommon, MI. Prototypes and blue line drawings were completed and reports published on several high-priority projects, including the 3/4-ton Tanker Handbook. Five other project reports were completed and published.

Distribution and implementation have begun on the Federal Excess Property Guidelines, which were rewritten in FY 1978. Under this program, CFFM

helps locate and obtain excess Federal property suitable for State fire program use, approves use of the property, and furnishes an inventory.

Two workshops are scheduled for 1979 to familiarize the States with changes in the Excess Property Guidelines. They also provide coordination for the acquisition of equipment and supplies to reduce costs to the States.

During 1978, excess property reviews were conducted in eight States, reviews were documented, and implementation of recommendations was begun. Other States in the Area are scheduled for review in FY 1979. The value of excess property acquired by the States amounted to $5.5 million in FY 1978, double what it was the previous year.

Insect & Disease Management

Protecting forests from insect and disease pests through prevention, detection, evaluation, and suppression is the mission of the Forest Insect and Disease Management Group.

Pathologists and entomologists in the Broomall office and field offices work with the individual States, providing leadership, technical assistance, and financing to support forest protection activities.

Among the most significant accomplishments during Fiscal Year 1978 were those relating to suppression of diseases and insect infestations in the 20-State Northeastern Area.

In Pennsylvania, a cooperative suppression project was conducted by the Pennsylvania Bureau of Forestry, Division of Forest Pest Management. The work was carried on in 135,166 acres of high-value forested communities and high-use recreation areas where trichlorfon (Dylox 1.5 Oil) was applied from the air to infested areas across 24 counties. The resulting foliage protection exceeded 80 percent.

Successful use of a biological insecticide was demonstrated in a gypsy moth suppression project conducted by FIDM at the Pinchot Institute for Conservation Studies in Milford, PA. Here, Thuricide 16-B (Bacillus thuringiensis) was applied twice by air, 9 days apart, at the rate of 1 gallon per acre to 100 acres of high-value recreation forest land. The pesticide application reduced the population by 88 percent, protected 85 percent of the foliage, and reduced egg mass counts by 98 percent.

In New Jersey, aerial application of Sevin-4-Oil (Carbaryl) were used to control the gypsy moth in residential and recreational forests under cooperative projects conducted by both the New Jersey Department of Agriculture and the Department of

Environmental Protection, Bureau of Forestry.

The Department of Agriculture treated 31,809 acres of infested residential acres in 64 municipalities in 14 counties of the state. The pesticide was applied from fixed-wing aircraft. Post-suppression evaluation data indicate that the pesticide application reduced the population by from 86 to 96 percent and protected 70 percent of the foliage.

The Bureau of Forestry's suppression program consisted of aerial application of carbaryl to 2,704 acres of high-value recreational forests where the treatment achieved a population reduction of 90 percent and 70 percent foliage protection.

A 1978 cooperative spruce budworm suppression project in Maine utilized carbaryl (Sevin-4-Oil), trichlorfon (Dylox), acephate (Orthene Forest Spray) and Bacillus thuringiensis to treat spruce budworm infestations over 1,115,452 acres of spruce-fir forests. Population reduction for all treatments was 88 percent. The report for this multi-year project has been completed and distributed.

In another gypsy moth project, FIDM set out to improve population detection and defoliation prediction techniques by incorporating new methods into survey and evaluation procedures. The Delaware, OH, field office plans to review the system and to cooperate with the authors in making it more usable.

FY 1978 saw the start of a pilot project to evaluate a system of standards for rating forest stand susceptibility to gypsy moth damage. As part of this task, more than 600 plots were established in Pennsylvania. The field data collection has been completed and the project is being evaluated for possible expansion to Maryland and other states.

The FIDM staff, assisted by Maine and New Hampshire, prepared a spruce budworm environmental statement and, with Pennsylvania and New Jersey assistance, prepared a gypsy moth environmental statement. Both statements were completed and filed. New Hampshire withdrew from the project

and no suppression work was done there.

Another high-priority item was the initiation of demonstration projects in Minnesota and Wisconsin for control of Dutch elm disease and the utilization of dead elms. Six Minnesota control demonstration communities were selected and the project is well underway. Permanent personnel were hired by the Department of Natural Resources to coordinate the work.

Also underway is a project to use pelletized elm wood for heating the Stiliwater State Prison. An accomplishment report is available.

Already completed was a pilot project of pressure injection for Dutch elm disease control in Ohio and Illinois. The technical report has been submitted to the Journal of Arboriculture for publication and popularized publications on pruning for Dutch elm disease control and helicopter surveying for the disease also are ready for the printer.

A draft report has been prepared on a pilot project for evaluating carbaryi, mexacarbate, malathion, and resmethrin for suppression of the red-humped oakworm in Michigan. This report is being reviewed and will be completed and distributed in FY 1979.

Also in Michigan, the field work was completed on a pilot project for evaluation of cultural techniques for prevention of pine root collar weevil. Pine stumps are being dissected and examined for insect damage and the final report is expected early in 1979.

The staff conducted a total of 19 detection and evaluation surveys on several national forests, two wildlife refuges, and two areas administered by the National Park Service. The annual resurvey of spruce budworm impact plots in Maine has been completed and one more survey in 1979 is planned before the final report is prepared on this 5-year project.

Considerable progress was made on a project to complete and publish a pamphlet "Insects and Diseases of Northern Forest Trees." Preprinting work is almost completed.

Another important continuing project during

Fiscal Year 1978 was the preparation and distribution of "Pest Alerts" as needed. "Pest Alerts" were reprinted on scleroderris, sirococcus, and diplodia. "How to" brochures were printed on nectria canker, air pollution, oak borers, Phellinus igniarius, and pine engraver beetle damage.

The unit evaluated the ecological and economic impacts of gypsy moth-caused defoliation on wildlife habitat, water, and fire in the Northeastern Area. The work was accomplished by cooperative agreement with Essex Marine Laboratory and the draft report has been completed.

Underway in Michigan is a pilot project to evaluate a technique for silvicultural prevention of jack pine budworm. The preliminary field work is completed on this multi-year cooperative project with the Michigan Department of Natural Resources and Michigan State University. Results will not be known until after the expected budworm outbreak occurs in 1980.

Environmental Quality Evaluation

Protecting and improving the quality of our environment by working with State and private forest interests are the goals of the Environmental Quality Evaluation staff.

High priority is given to assuring compliance with a number of Federal laws, particularly the National Environmental Policy Act of 1969 and the Federal Insecticide, Fungicide, Rodenticide Act as amended. Emphasizing the management of the NEPA process and of pesticides, the EQE staff provides a number of services to achieve its goals while fulfilling legislative commitments.

EQE also assists cooperators to select effective equipment to detect and to monitor air pollutants, provides training on use and maintenance of equipment, reviews air pollution research, and provides expert advice to cooperating agencies.

The number and types of available pesticides are growing at a mind-boggling rate and potential users need authoritative information on their properties, availability, and use, and relevant Federal and State regulations. The EQE staff provides these data, reviews proposed operational uses of pesticides by the Forest Service, and gives background information on pesticides for environmental impact statements and environmental analysis reports.

The use of pesticides by the Forest Service is more subject to public concern and criticism now than ever before. To help assure that Forest Service pesticide applications can withstand close scrutiny, a pesticide applicator training manual has been developed by EQE. The manual reflects the basic standards of competence expected of Forest Service workers and includes chapters on forest pests and pest control, pesticides, pesticide labels, pesticide

safety, pesticide transportation, storage and disposal, application equipment and techniques, laws, regulations, and Forest Service policy, It is anticipated that training will be directed primarily at the crew boss or supervisor or part-time or seasonal laborers. Also developed to accompany the training manual was an examination that can be administered at the local level.

After final review, the manual will be distributed to Forest Service units and cooperators within the 20-State Area and region.

The 1972 amendments to the Federal Insecticide, Fungicide, Rodenticide Act require the selection and use of properly registered pesticide products and provide penalties for misuse.

Making the proper choice from the more than 30,000 pesticide products registered by the Environmental Protection Agency is difficult. In recognition of this, a series of pesticide label guides has been developed, the latest being "Pesticide Guide for Shade and Ornamental Trees." The urban situation is most critical because of the wide range of pests and hosts encountered and the high intrinsic value of individual trees or shrubs. Also, it is here that the people/trees/pesticides interface is most decisive and pesticide decisions are most apt to be carefully examined by the public.

This pesticide guide was developed to assist urban foresters, arborists, and others concerned with urban shade and ornamental tree care to find properly registered pesticide products. The guide, like the Nursery Pesticide and Herbicide Handbooks which were previously published, is a collection of product labels that can be traced through an index of hosts, pests, or active ingredients. All uses of pesticides proposed by Forest Service units, permittees, licensees, or by States as part of federally financed cooperative programs are reviewed to assure that the products proposed are registered for the specific purpose and site. Environmental Quality Evaluation reviewed 550 use proposals last year. In about a third of these cases, EQE recommended a change of product, method of application or dosage to make the use lawful.

The National Environmental Policy Act of 1969 required that all major Federal actions consider the impact of the action on the environment before the implementation decision is made. It further required that the public be involved in the decision-making process and that its participation be made visible in an environmental statement.

Comments on draft statements are required to be solicited from any Federal agency which has jurisdiction or special expertise with respect to any environmental impact involved. Environmental Quality Evaluation staff, representing NA, reviewed and prepared substantive comment, within the area of its expertise, on 90 environmental statements, environmental assessments, and related documents authored by State cooperators and other Federal agencies. Interdisciplinary input to NA's comments is obtained through consultation with staff specialists through the Northeastern Area and in coordination with the affected State.

Support Services

The Support Services staff is unique within the Broomall office of the USDA Forest Service in that it serves both the Northeastern Area State and Private Forestry and the Northeastern Forest Experiment Station. Since the two regional organizations are headquartered in one building, the Support Services staff is able to serve the dual role and prevent duplication of support staff.

Specifically, the Support Services staff provides expertise in the areas of budget and fiscal, administrative services, personnel management, administrative management, biometrics, engineering, and publications.

By far its most time-consuming project of the past year was the relocation of the NA/NE headquarters from Upper Darby, PA, to a new building in Broomall. The actual move occurred in March 1978 and culminated several years of study and planning. Adjustments were necessary after the move and improvements will continue. Relocation of the headquarters meant designing a new office layout, publications storage, Centrex telephone modification, metered mail system, consolidation of Area staff groups, developing a Forest Service lobby display depicting the NA/NE mission, and numerous other changes.

Another significant accomplishment during the past fiscal year was completing action on our Civil Service audit recommendations to improve the personnel management of NA/NE. This project includes a series of interrelated tasks: policy supplements were issued on job classification, recruitment, and staffing procedures; training plans, approval, and justification have been clarified and published as policy; and a position management process has been documented and formalized.

A task that was concluded under the FY 1978 plan of work was to implement the Forest Service Program Accounting and Management Attainment Reporting System (PAMARS), phasing out the local Encumbrance System. NA/NE was a part of a pilot test area for this changeover, which is being carried out over 3 years throughout the Forest Service. This means that all payment, obligation, and reporting processes now are handled directly between Forest Service units, vendors, and the New Orleans finance center.

A headquarers library organization study was implemented and completed during the year. As a result, the local librarian's position was abolished and has been replaced by a library technician at Broomall and a technician stationed at the National Agriculture Library at Beltsville, MD. The technicians make copies of articles, research material needed in Broomall and field offices, and handle subscription and book purchasing control for NA/NE.

Safety hazard hunts in compliance with OSHA regulations were conducted at St. Paul, Delaware, and Morgantown by the local staff, supported by local safety committees. A 3-day training session for maintenance supervisors was contracted for with a private firm, covering OSHA standards, inspection process, and reporting requirements. During the year, a safety and health seminar was held at Morgantown and training in defensive driving, first aid, and the use of oxygen for resuscitation was started in Broomall as part of a continuing program.

Pinchot Institute for Conservation Studies

Located at the former home of Gifford Pinchot in Milford, PA, the Pinchot Institute for Conservation Studies was dedicated by President John F. Kennedy in 1963. Its purpose is to further conservation programs of the Forest Service and other conservation agencies through research, analysis, training, and conferences.

Grey Towers, a registered National Historic Landmark, was the home of the Pinchot family. It is a fitting site for the institute that bears the name of the father of American forestry and conservation.

The institute launched an ambitious expansion in FY 1978 to include a visitor information program, a human resource program, historic restoration, and national program elements. The expanded program was implemented in April and a permanent professional staff assigned to the institute in late July. During this year of formulation and transition, however, considerable progress was achieved.

The human resources program, particularly the Young Adult Conservation Corps and the Youth Conservation Corps, contributed substantially to the overall program at the institute.

Duties of the 24 YACC enrollees ranged from maintenance, construction, and historical restoration to timber stand improvement, and from visitor assistance, litter pick-up, and road maintenance to visitor information service, clerical work, and artifact inventory.

Serving for only 8 weeks, enrollees in the YCC program restored a historic cemetery located on the grounds, thinned and pruned trees, scraped and painted ironwork, cleaned and straightened gravestones, and constructed a gravel walkway. In addition, they researched, inventoried, and

compiled a report on the contribution made to the community by the people buried in the cemetery.

Other YCC work included trail planning, stream bank improvement, floral, faunal, and historical research, trail obliteration, display construction, and litter pickup.

A 4-member staff was assembled to provide visitor information services beginning in July. This group gave hourly tours of the house and grounds 7 days a week, forest walks thrice daily, Saturday evening tours of the house and grounds, and forest environmental investigations on Saturdays. A total of 13,220 persons took advantage of these programs.

As part of the interpretation, 4 booklets on the institute and its programs were developed or revised and a contract was let for an orientation slide series on the institute's program.

Maintenance work progressed well on both the house and grounds during the year. The exterior water system was reconstructed, the grounds raked, hedges trimmed, and several interior rooms were spackled, sanded, and painted. The wisteria arbor underwent major repairs and the garage was converted into a YACC project area. Some 1,200 square feet of brick patio were relaid in sand to historical standards, 400 feet of flagstone walks were reset in sand, buildings were thoroughly cleaned, and floors were waxed. To improve security, the fire alarm system was upgraded and a burglar intrusion alarm system installed.

Interior roads were chipped and sealed, cast aluminum site signs installed, and rugs placed in traffic areas to protect the historic fabric of the main building. Four footbridges were reconstructed and the swimming pool excavated and converted to a reflecting pool.

A preliminary historic structure report is in the final stages of completion to be used as a basis for future restoration efforts. In addition, a contract was let for a final structures report, a historic American building survey, and a historic landscape report and management plan.

On the basis of the recommendations in the

preliminary report, the historical architect is preparing detailed plans and specifications for major maintenance and restoration needs of immediate importance. These needs will be listed in order of priority for inclusion in future budget requests.

Heavy emphasis at Grey Towers has been placed on community affairs. The institute's exhibit won first prize in the Pike County Fair and it received a special merit award. Another exhibit was placed in the annual Pike County Days celebration and its parade float was awarded a trophy. The institute has worked closely with key groups in the community, such as the Milford Garden Club which provided technical assistance in re-establishing the flower beds at Grey Towers. YACC enrollees have assisted the community in tree planting and park cleanup.

In the field of national program accomplishments, the institute has let a contract for a 2-year study to improve urban forestry technology transfer with top-level decision-makers in city government. A second contract was let for a 1-year study to improve methodology for including forest values in metropolitan land-use planning decision-making. In partnership with the Forest Service Office of Information in Washington, the institute is co-sponsoring a project to improve environmental and public involvement, knowledge, and skills of members of the American Forestry Association.

The institute has participated in several meetings, serving as host for a colloquim on Forest Service pest management policy evaluation and for the first and second meetings of the Forest Service Task Force on internal and external communications management. Further, the institute is one of 4 cooperators in a national workshop on future issues in renewable natural resources and their implications for USDA programs.

Eligibility for participation in all programs administered by the Department of Agriculture is established by law without regard to race, color, national origin, sex or religion.

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